

U.S.S.N. 10/063,498

7

199-1941 (FGT 1503 PA)

**REMARKS**

In the Office Action dated February 2, 2005, claims 1-11 and 13-19 are pending. Claims 1, 11, 16, and 19 are independent claims from which all other claims depend therefrom. Claims 1, 6-7, 11, and 13 have been amended for clarification reasons not patentability reasons.

Amended Claims 1 and 11 recite the limitations of predicting a non-planned future path of an automotive vehicle. The Examiner, in the Office Action, poses the question, how can a method and/or system detect something that is in the future and it has not happened yet? Lacking an answer to this question or an understanding as to what is meant by the term "non-planned future path", the Examiner, for this reason alone, finds the present disclosure to not be enabling to one skilled in the art. As such claims 1-15 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Applicants amended claims 1 and 11 to recite "predicting a non-planned future path", as opposed to reciting "detecting a non-planned future path" to clarify what is meant by the term "detecting" in the associated limitations. Applicants submit that regardless of this amendment this is clearly implied by the claims and the specification of the present application.

Applicants submit that a system can detect or predict a future path of a vehicle, that the specification of the present application clearly provides such enablement, and that one skilled in the art upon reviewing the specification would clearly understand how to make and/or use the claimed invention.

In the previous Response, the Applicants submitted that the term non-planned future path" refers to a future path that is not predetermined or planned. In other words, a non-planned future path is not predetermined and stored in a memory and later recalled to guide a vehicle. A non-planned future path is an upcoming path that may be detected or predicted. In detecting a future path, a system may detect or predict a future vehicle speed,

U.S.S.N. 10/063,498

8

199-1941 (FGT 1503 PA)

acceleration/deceleration, and heading, as well as whether a vehicle is to change lanes, enter an exit ramp, or other future path related information.

The specification of the present application clearly provides enablement for detecting or predicting a non-planned future path of a vehicle. In paragraphs [0026]-[0033] of the specification various parameters and characteristics of a vehicle and its surrounding environment are detected, received, and determined. These parameters and characteristics enable a system to detect or predict a vehicle future path. The specification provides for the detection of vehicle velocity, speed, acceleration, deceleration, yaw rate, position, and location. The specification also provides for the detection of objects and characteristics thereof. A navigation signal is also provided, received, and may include vehicle position, location, future vehicle path, landmarks, construction zones, road curvature, number of lanes, road type, road inclination, and road condition. In addition, modes of operation are also initiated. These various parameters and characteristics utilized in various combinations allow a system to monitor the behavior of a vehicle operator, to monitor a current situation in which a vehicle is operating, to monitor a current roadway and impending roadways, and to monitor the manner in which that vehicle is currently being operated. The stated monitoring allows the system to predict a future path of a vehicle without having prior knowledge of that path.

A couple of examples provided in paragraphs [0029], [0032], [0033], and [0035]-[0039] of the specification are summarized below. As a first example, by detecting the yaw rate and speed of a vehicle and roadway parameters, such as the number of lanes, the existence of a ramp, etc., a system can predict whether the vehicle will remain in the current lane, change lanes, enter an exit ramp, etc. As another example, in detecting vehicle yaw rate, speed, and acceleration, and the existence of objects and there relation to the vehicle, a system can predict the future direction or heading of a vehicle.

U.S.S.N. 10/063,498

9

199-1941 (FGT 1503 PA)

Thus, the specification openly and undoubtedly provides adequate disclosure to enable one skilled in the art make and/or use the claimed invention. Referring to MPEP 2164, as long as the specification discloses at least one method for making or using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 U.S.C. 112 is satisfied. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970). The present specification provides several examples, and provides the components and systems to detect and determine the above stated parameters and characteristics.

The test for enablement is whether one reasonably skilled in the art could make or use the invention without undue experimentation, *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988). A patent need not teach, and preferably omits, what is well known in the art. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991). Also, the fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation. *In re Certain Limited-Charge Cell Culture Microcarriers*, 221 USPQ 1165, 1174. Applicants submit that the claimed invention may be used in light of the specification without experimentation.

Furthermore, Applicants submit that the specification teaches the manner and process of using the claimed invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented and thus must be taken as being in compliance with the enablement requirement. Thus, the present specification is enabling with respect to claims 1 and 11 and therefore the 35 U.S.C. 112 rejection has been overcome. Applicants submit that, as a result, claims 1-15 are in a condition for allowance at least with respect to 35 U.S.C. 112.

In addition, Applicants submit that for the above and below stated reasons that the 35 U.S.C. 112 rejection was unsubstantiated. The Examiner has not provided any reason to doubt the objective truth of the statements contained

U.S.S.N. 10/063,498

10

199-1941 (FGT 1503 PA)

within the specification. The Examiner has also not provided any specific technical reasons as required to support a *prima facie* case of lack of enablement. *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367,370 (CCPA 1971).

Claims 1-11, and 16-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kageyama et al. (USPN 6,246,932) in view of Sielagoski et al. (USPN 6,212,465). Claims 13-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sielagoski in view of Kageyama. In the previous responses the Applicants provided reasons and arguments as to why the relied upon art fails to teach or suggest the following limitations of claims 1-11 and 13-19, why Kageyama is nonanalogous art, and why there is no suggestion or motivation within the art to modify and combine Kageyama and Sielagoski: A) detecting a future path; B) detecting a future path via a navigation system; C) generating a predicted future path profile; D) generating a predicted future path profile in response to a future path; E) inhibiting resume speed of a vehicle; F) inhibiting resume speed of a vehicle in response to a future path; G) inhibiting resume speed of a vehicle in response to a predicted future path profile; and H) inhibiting resume speed of a vehicle via an in-vehicle controller. Applicants submit that these reasons and arguments remain valid.

In the current Office Action, with respect to the Applicants' arguments for the failure of the prior art to teach or suggest the generating of a predicted future path profile and the inhibiting of a resume speed of a vehicle via an in-vehicle controller, states that Applicants' admitted prior art in combination with Kageyama provides such disclosure. The Office Action refers to page 5, paragraph [0027], where the specification states "other detection methods known in the art" in reliance on Applicants' admitted prior art. Applicants, respectfully, traverse. Applicants submit that the recital of "other detection methods known in the art" is irrelevant and unrelated to the argued claim limitations and is not admitted prior art.

U.S.S.N. 10/063,498

11

199-1941 (FGT 1503 PA)

The stated text is part of the sentence, "Although the detection system 28 of the present invention is radar based the detection system 28 may be laser based, infrared based, x-ray based, or based off other detection methods known in the art.". The stated text refers to the detection system 28 not the controller 24. The limitations recite the generating of a predicted future path profile and the inhibiting of resume speed via an in-vehicle controller. The argued limitations do not recite a detection system or the basis of the detection system. Also, the stated text does not mention generating a predicted future path profile or inhibiting resume speed. The stated tasks are performed by the controller 24 not by the detection system 28.

Applicants submit that the stated text is not admitted prior art, but rather simply suggests that the detection system 28 may be based off of various technologies and is not limited to those mentioned. The specification then states how the stated technologies are utilized to provide an object profile. Providing an object profile via a detection system is also clearly different and separate from generating a predicted future path profile and inhibiting resume speed via an in-vehicle controller. Also, note that the stated text is in the Detailed Description section, which does not contain any admitted prior art, and not in the Background section of the present application.

Thus, the assertion that Kageyama's invention is known in the art and the correlation thereof with the stated text is improper and irrelevant. In addition, Applicants submit that to combine the teachings of the present application with that of a prior art reference is improper and would be improper use of hindsight in view of the present application. Regardless, such correlation or combination does not teach or suggest the argued claimed limitations. The stated text may infer that the detection system 28 of the present application may be radio based, such as the radio communication used is Kageyama to detect objects and determine an object profile. However, the stated text does not infer or admit that the detection system 28 or the methods in which the detection system 28 is used is prior art. Nevertheless, the combination of Kageyama with the disclosure

U.S.N. 10/063,498

12

199-1941 (FGT 1503 PA)

provided in the present application, specifically of a detection system that may be based on various technologies, does not teach or suggest the generating of a predicted future path profile and the inhibiting of a resume speed of a vehicle via an in-vehicle controller. This is especially true since the detection system does not perform the stated tasks.

In response to Applicants arguments regarding Kageyama being nonanalogous art, the Office Action states that the prior art reference must be reasonably pertinent to the particular problem with which the applicant was concerned and refers to *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Applicants agree. However, Applicants submit that Kageyama is not reasonably pertinent to the particular problem with which Applicants were concerned. Applicants have stated that in developing an adaptive onboard control method for controlling the speed of an automotive vehicle for incorporation into an adaptive cruise control system, one would clearly not look to a vehicle monitor within a remotely located monitoring station. The monitor station of Kageyama monitors remote vehicles and directs a vehicle of concern to follow a predetermined path in response to the relative location of other monitored vehicles and a pre-planned route. The monitoring system of Kageyama would not have logically commended itself to the Applicants' attention in solving the problems associated with adaptive cruise control and for adaptively controlling a vehicle via an in-vehicle controller.

Applicants further submit that *Oetiker* also states that the courts have recognized the subjective aspects of determining whether an inventor would reasonably be motivated to look to the field in which the examiner found the reference, in order to solve the problem confronting the inventor. The court has reminded the PTO that it is necessary to consider "the reality of the circumstances". In other words, common sense dictates which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor. Also, *Oetiker* states that the combination of elements from non-analogous sources, in a manner that reconstructs the Applicants' invention

U.S.S.N. 10/063,498

13

199-1941 (FGT 1503 PA)

only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. There must be some reason, suggestion, or motivation, found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge cannot come from Applicants' invention itself. In addition, simplicity is not inimical to patentability.

In *Oetiker* it was found that although the prior art separately disclosed the elements of the claimed invention and although both references were related to fasteners that the reference disclosing the plastic hook and eye fastener was nonanalogous art. The court stated that fasteners that are used in garment art are unrelated to hose clamps, although both being a type of fastener. Therefore, all fastener problems are not analogous.

Similarly, Applicants submit that all vehicle control system problems are not analogous. Although Kageyama discloses a vehicle control system, the vehicle control system is exhibited by a remote monitoring station, which is used to guide construction trucks within a construction site. The art of remotely guiding trucks on a construction site is clearly nonanalogous to the art of internally controlling the operation of an automotive vehicle on a roadway.

Applicants also note that the claims should be construed in light of the specification, see *Ex parte Kotler*, 1901 C.D. 62, 95 O.G. 2684 (Comm'r Pat. 1901) and *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). Thus, it was not the intent of the Applicants that the method of adaptively controlling the speed of a vehicle refer to the remote monitoring and guiding of construction site vehicles, but rather to automotive in-vehicle controllers for individual on road operation. In developing an adaptive cruise control system one would not look to a system for remote monitoring and control of construction site vehicles. The system of Kageyama would not have logically presented itself to one of skill in the art in solving the problems associated with adaptive cruise control systems. A person of ordinary skill in the art of adaptive cruise control systems would not reasonably look to the art of construction site operation. Applicants submit that the remote or broadly suggested connection

U.S.S.N. 10/063,498

14

199-1941 (FGT 1503 PA)

between Kageyama and the present invention due simply based on both dealing with vehicle control is far-reaching and inappropriate. Furthermore, there is no reason, suggestion, or motivation, found in the prior art whereby a person of ordinary skill in the field of the invention would make the necessary modifications and combination.

Applicants have submitted that the prior art fails to teach or suggest each and every element of claims 1, 11, 16, and 19. In asserting the unsubstantiated arguments of the current Office Action, the Examiner also admittedly implies and agrees that the prior art fails to teach or suggest each and every claimed limitation. Therefore, claims 1, 11, 16, and 19 are novel, nonobvious, and are in a condition for allowance. Also, since claims 2-10, 13-15, and 17-18 depend from claims 1, 11, and 16, respectively, they to are novel, nonobvious, and are in a condition for allowance.

The Office Action states that Applicants' amendment necessitated the new grounds of rejection. Referring to MPEP 706.07, Applicants, respectfully, submit that this action has been improperly been made final. Applicants agree that under present practice a second or subsequent action may be made final even when the Examiner introduces a new ground of rejection as is necessitated by Applicants' amendment. However, Applicants' amendment did not necessitate the above 35 U.S.C. 112 rejection, since the specification is clearly enabling. Also, present practice does not sanction hasty or ill-considered final rejections. The Applicants have merely seeked to define the patent protection to which they are justly entitled. The Applicants have previously and clearly amended the claims such that the claimed invention is not taught or suggested by the prior art, and in so doing they deserve the cooperation of the Examiner and should not be prematurely cut off in the prosecution. The Applicants have responded promptly and have not resorted to technical or obvious subterfuges.

Moreover, Applicants submit that since the combination of the specification of the present application with that of Kageyama is improper and



U.S.S.N. 10/063,498

15


199-1941 (FGT 1503 PA)

irrelevant, and since the prior art fails to teach or suggest each and every element of the claims, that the present application was also improperly made Final. Although the claims have been and remain in allowable form, should the Examiner deem a further search is necessary, the application should be made non-final and the issuance of an Advisory Action should be deemed inappropriate at this time.

In light of the amendments and remarks, Applicants submit that all objections and rejections are now overcome. The Applicants have added no new matter to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, she is respectfully requested to call the undersigned attorney.

Respectfully submitted,

ARTZ & ARTZ P.C.

  
\_\_\_\_\_  
Jeffrey A. Chapp, Reg. No. 50,579  
28333 Telegraph Road, Suite 250  
Southfield, MI 48034  
(248) 223-9500

Dated: March 31, 2005